Don Bosco Technical College	Topic Outline	Campus: Mandaluyong Sector: TVET Page Number:

Course/Program/Subject	Duration (in hours per week)	Training Modality
Basic Electricity	7 Hours	Face to Face
Target Qualification	**Duration (in weeks)**	**Developed By**
EIM NC II	16 Weeks	Robin Louis F. Perdiguerra

Course Objectives:

By the end of this course, students will be able to:

1.Demonstrate a clear understanding of electrical safety principles, including the correct use of personal protective equipment and hazard recognition in electrical systems.

2.Explain fundamental electrical concepts such as voltage, current, resistance, and power using appropriate formulas and laws (Ohm's and Kirchhoff's Laws).

3.Construct and analyze basic electrical circuits, including series, parallel, and combination circuits using real components.

4.Identify and describe the function of essential electrical components like switches, fuses, resistors, circuit breakers, and transformers.

5.Use electrical measuring instruments properly to test voltage, current, resistance, and continuity in live and de-energized circuits.

6.Apply basic troubleshooting skills to diagnose and correct faults in simple electrical systems and motor circuits.

7.Interpret electrical symbols and diagrams relevant to basic circuits.

Week/Day	Topic	Learning Activities	Assessment Methods
1	Introduction to Electricity, Safety and PPE	Demonstration	Participation
2	Atomic Theory, Voltage, Current and Resistance	Building Simple Circuits	Laboratory Output
3	Ohm's Law and Power Law	Calculations and Hands-on Testing	Problem Set and Laboratory Output
4	Series, Parallel and Combination Circuits	Construct and Analyze Circuits	Laboratory Output and Completion Report
5	Kirchoff's Laws (KCL & KVL)	Voltage and Current Verification	Activity Sheet and Written Quiz
6	Electrical Components and Symbols	Identify, Read and Test Various Components	Activity Sheet
7	AC/DC Theory	Experiment with AC and DC Supplies	Laboratory Output
8	Relays, Magnetism & Induction	Wiring Relays and Simple Motors	Laboratory Output
9	Transformers	Transformer Ratio Activity and Testing	Activity Sheet
10	Wire and Cable Types	Stripping, Connecting and Splicing exercises	Laboratory Output and Written Quiz
11	Conductors and Insulators	Resistance Testing and Insulation Verification	Activity Sheet
12	Basic Motor Control Circuits	Motor Control Wiring and Troubleshooting	Laboratory Output
13	Forward-Reverse Motor Control Circuits	Motor Control Wiring and Troubleshooting	Laboratory Output
14	Wye-Delta Motor Control Circuits	Motor Control Wiring and Troubleshooting	Laboratory Output
15	Review, Application and Integration	Building Composite Circuits	Laboratory Output and Written Quiz
16	Final Evaluation	Institutional Assessment	Institutional Assessment